

City of Atlanta

Technology Management Process Review and Redesign

Final Report Executive Summary

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Agenda

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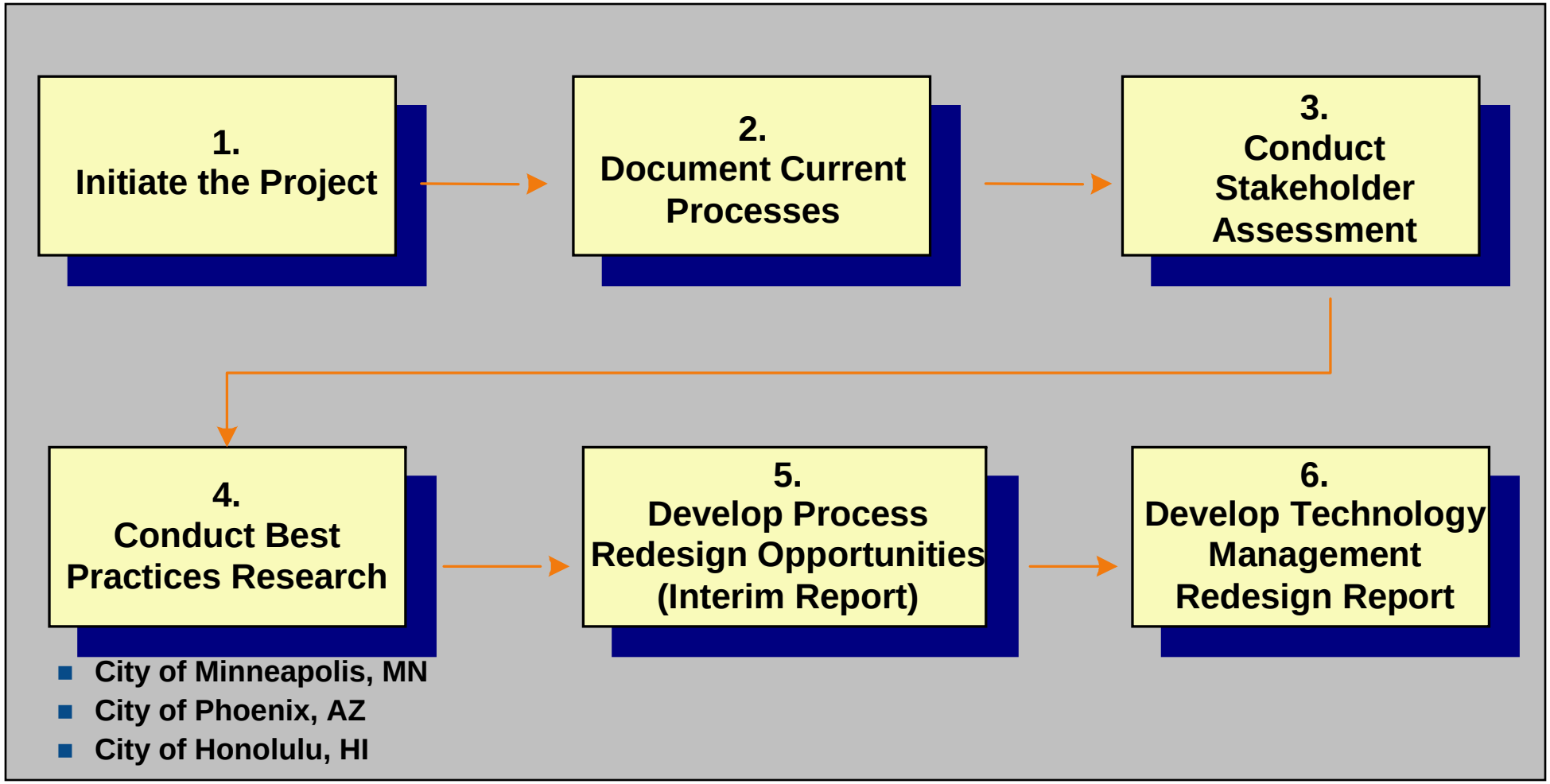
Project Objectives

- **Understand, document and redesign these key Technology Management processes:**

1. **IT Strategy Development**
2. **Annual IT Planning**
3. **IT Architecture Development**
4. **IT Products and Services Management**
5. **IT Operations Management**
6. **User Training and Support**
7. **IT Unit Management**
8. **Telecommunications Management**

Project Approach



Overview of Current IT Environment

- **Following are the City's estimates of the current IT environment. These figures are based on a survey recently conducted by the City.**
  - 5,061 IT Users
  - 4,111 Desktops
  - 171 Servers
  - 162 IT staff members
    - 55 IT staff in the Bureau of Management Information Systems (BMIS)
      - Prior to 1996 there were approximately 80+ people in BMIS
    - 107 IT staff in City Departments (outside BMIS)
  - 3 Help Desks (in BMIS, Airport and Police)
    - 11 Departments with staff providing Tier 1 support
  - 5+ Computer Training Classrooms and Programs
  - Estimated Citywide expenditures on IT are approximately $20 million

IT Management Issues

- **The City's current IT Governance mechanism is not effective, which has resulted in "islands" of technology throughout the City.**
- **The City has no effective mechanism for approving and tracking Citywide IT expenditures.**
- **IT Organization:**
  - The City's has not centralized IT responsibilities that should be centralized, or decentralized IT responsibilities that should be decentralized.
  - Staffing levels for BMIS have steadily declined in recent years, and little or no training has been provided to remaining staff.
  - City IT compensation levels are not competitive with other employers in the region.
- **The City's communication infrastructure (telephones and e-mail) does not allow City staff to effectively locate and communicate with other employees.**
- **The City does not use rigorous processes for planning and managing large-scale system implementation projects, leading to projects that are overdue and provide less value than expected.**
- **The City has a vast amount of information that could be shared among Departments and with the public, but the technology infrastructure will not allow it.**
- **The City does not have an adequate disaster recovery plan, putting the City's key information assets at risk.**

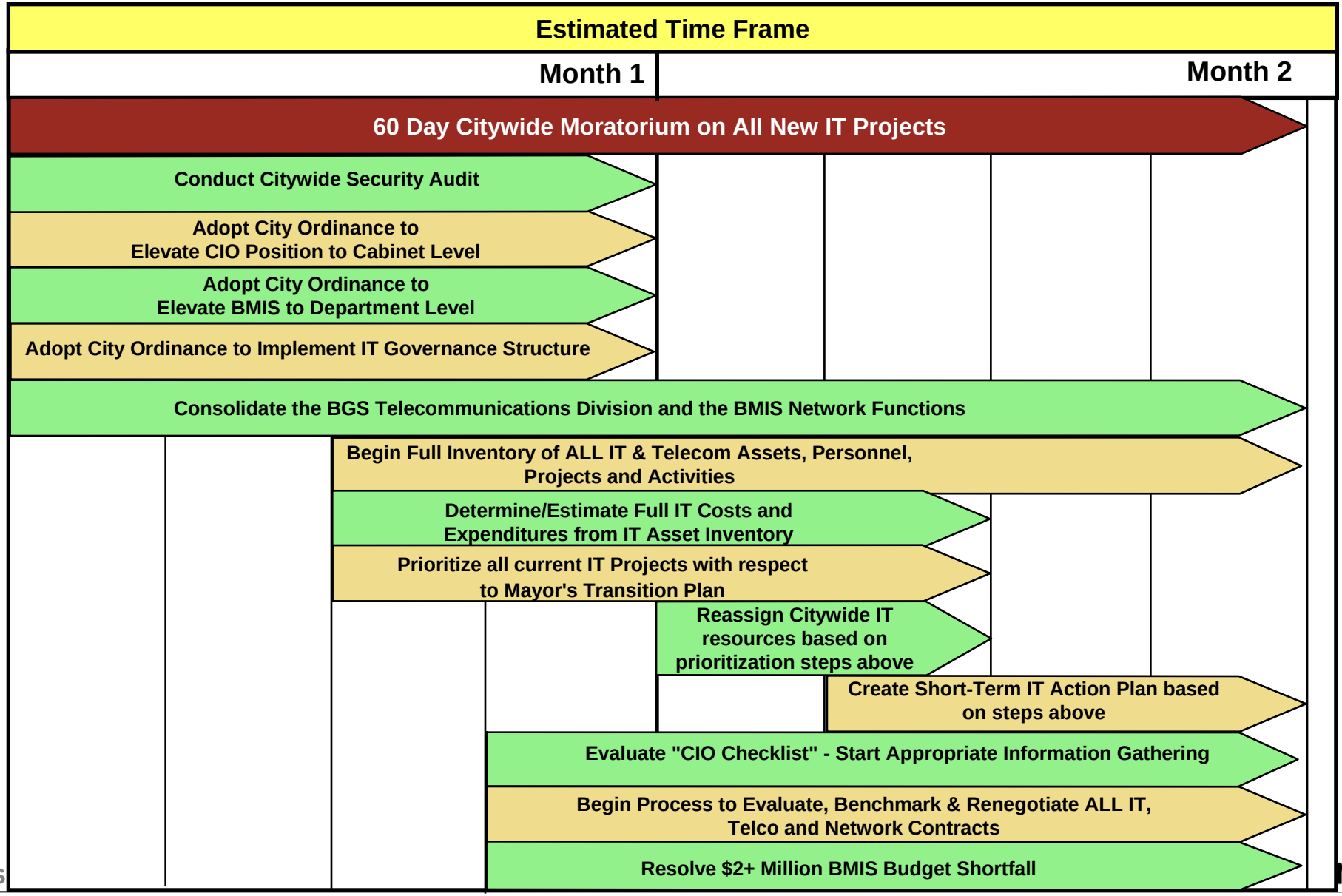
Opportunities for Improvement in Key Technology Management Processes

- **The IT Strategy Development process is not recurring or Citywide.**
- **Since there is no updated IT strategy, the City does not undertake Annual IT Planning.**
- **The City has no enterprise-wide IT Architecture Development Process. Individual departments have their own architectures.**
- **The City currently has an ad hoc process for IT Products and Services Management**
  - Products and services are not determined, planned, communicated to customers, or monitored in an organized fashion. There are no service level agreements to articulate the type and level of service to be provided.
- **IT Operations**
  - The City has no fixed asset inventory.
  - The City has no capacity planning process.
  - The City does not use a formal change control process.
  - No tools are used for network and system management to proactively identify system problems before they are reported by users.
  - The City has a minimal Technical Support function. The City has partially back-filled the function through a contractor (at $400,000 per year).

Opportunities for Improvement in Key Technology Management Processes

- **IT training for users is decentralized, duplicative and reactive.**
- **There are duplicative Help Desks throughout the City, and the City's main Help Center does not use modern Help Desk software.**
- **IT Unit Management Process**
  - The IT chargeback process is not related to actual usage, and does not help to manage demand.
  - BMIS has not been able to hire needed staff members due to non-competitive salaries and lack of resources. Training for remaining BMIS staff members has been minimal.
  - Workload for BMIS has increased while staff has gone from approximately 80+ to 50 in three years.
- **Telecommunications Management Process**
  - City telecommunications is managed by the Bureau of General Services (BGS) while the City WAN is managed by BMIS. There is no official WAN budget.

Implementation Plan Summary
Triage/Urgent Issues



Implementation Plan Summary
Year 1

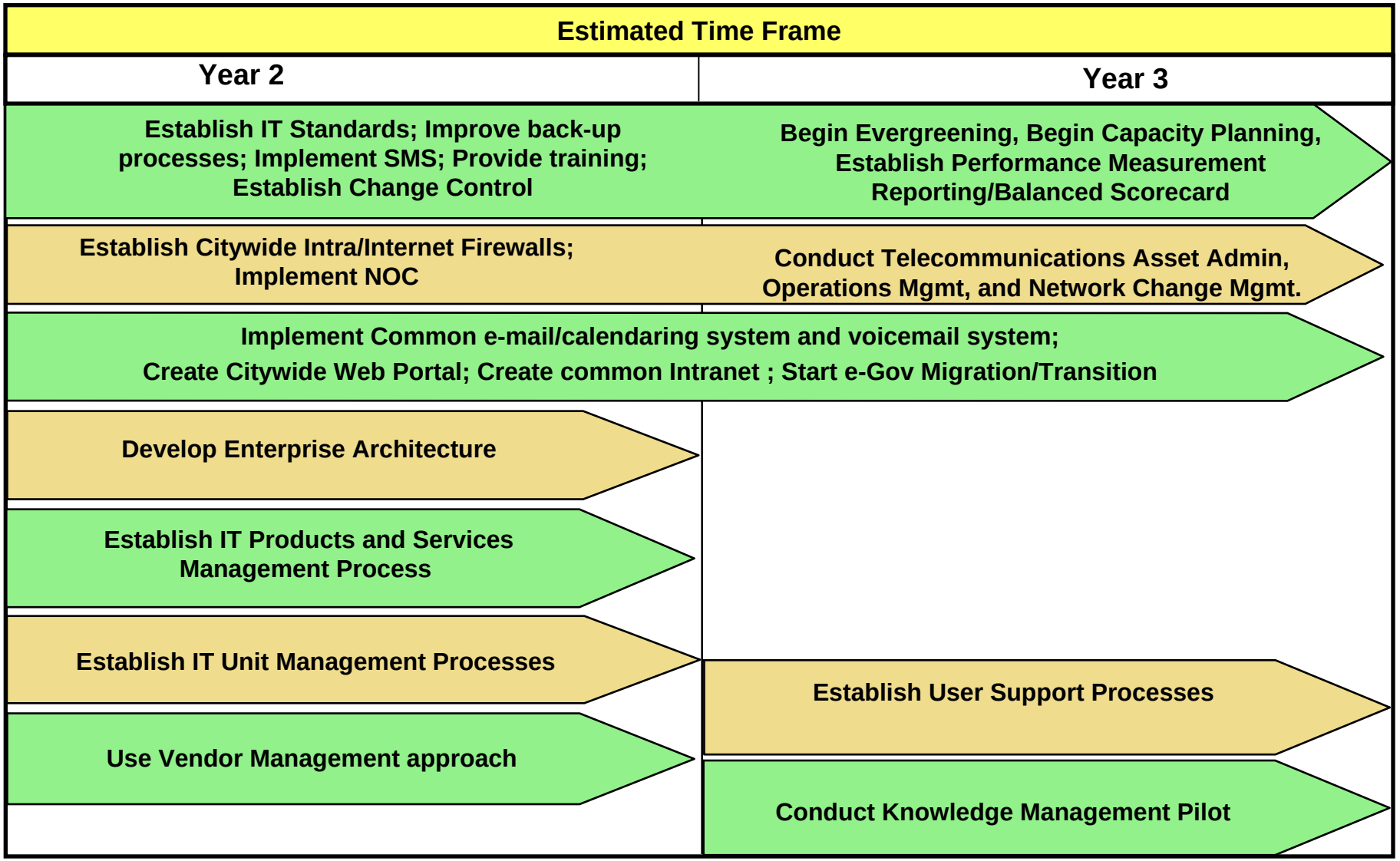
Estimated Time Frame

Year 1

Address IT Management Issues and Implement Subset of New Key Technology Management Processes

- Establish IT Governance Structure
- Develop Citywide IT Strategic Plan
- Establish Annual IT Planning Process to drive the budget for IT
- Establish IT Project Review and Approval Process
- Conduct IT Staffing Study, Skills Assessment, Compensation Study
- Implement User Training
- Develop Business Continuity and Disaster Recovery Plans
- Complete Citywide IT Asset Inventory
- Eliminate current chargeback system
- Develop City LAN/WAN Strategy, Architecture, Infrastructure
- Procure WAN services from multiple vendors
- Explore partnerships with other Cities/Counties/government agencies

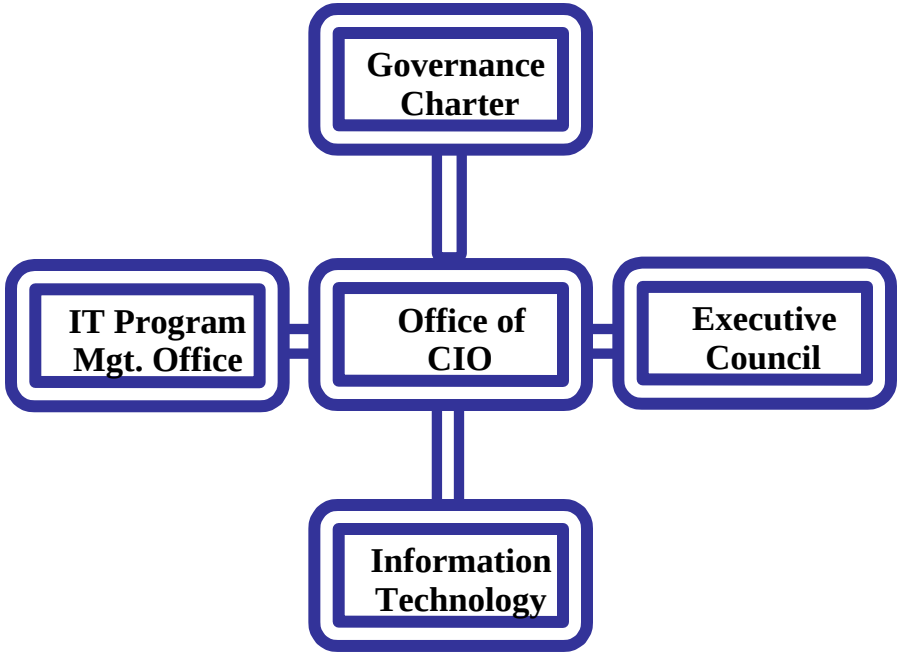
Implementation Plan Summary
Years 2 and 3



IT Governance Recommendations
Suggested IT Governance Charter

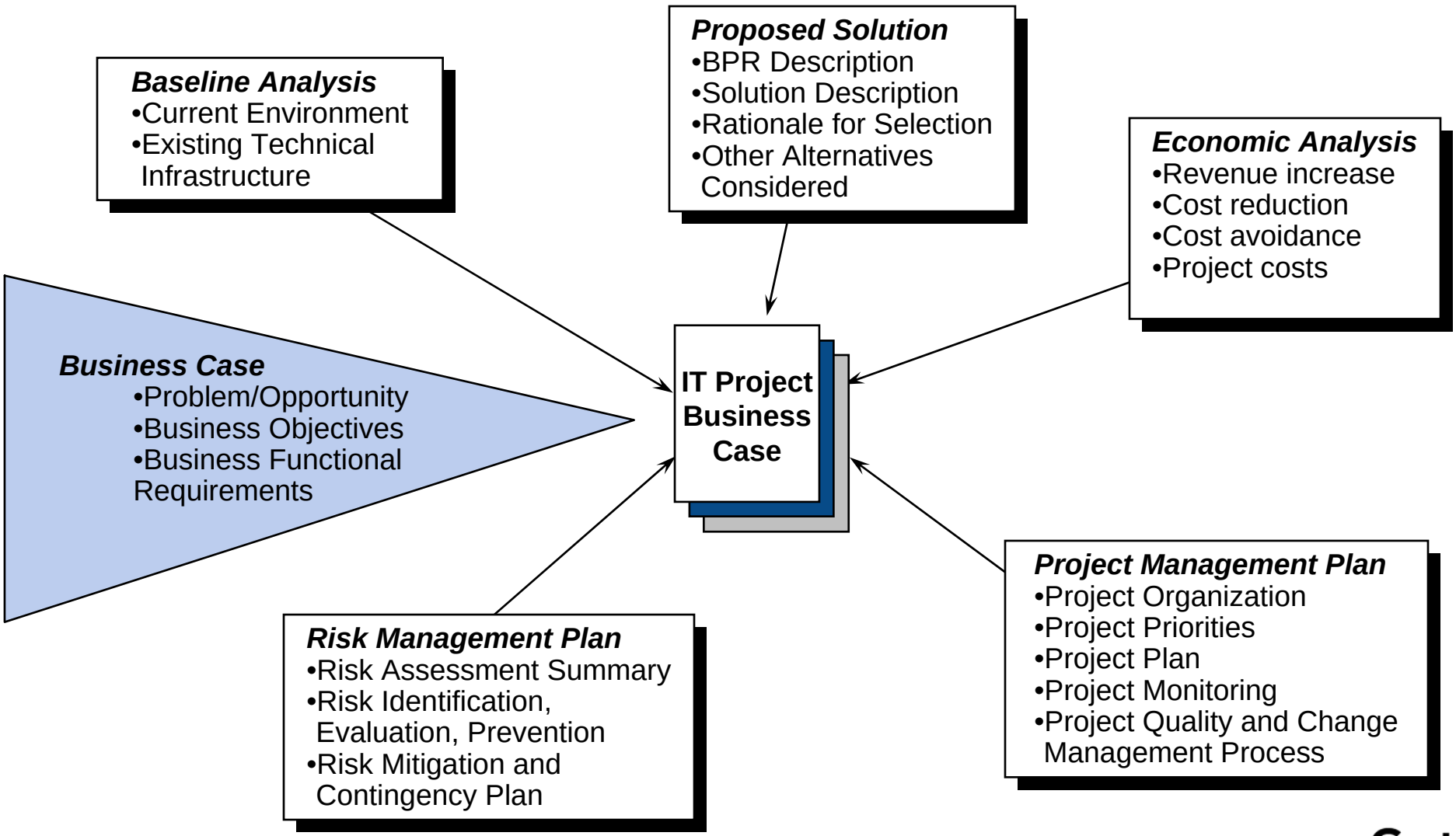
IT Governance Chain

- **IT Governance Charter** - Empowers the management of information technology through the business leadership. Establishes IT governance organization, processes, rules, roles and responsibilities. The charter is sponsored and approved by the City of Atlanta City Council and by the Mayor.
- **Office of Chief Information Officer (CIO)** – Empowered by the Charter and advised by the IT Executive Council to develop and implement strategy, enterprise priority criteria, policies and standards. The CIO reports to the Chief Operating Officer.
- **IT Executive Council** – Empowered by the Charter to advise the CIO on IT strategy, IT policy and standards, and processes and criteria for IT resource prioritization. The Executive Council serves as an advisory body to the CIO through the empowerment of this Charter.



- **IT Program Management Office (ITPMO**) – Empowered by the Charter and sponsored by the Executive Council. Reports to the CIO and applies day-to-day policy and standards review and tracking of initiatives. The ITPMO acts as caretaker of the IT Strategic Plan.
- **Department of Information Technology (DIT)** – Provides resources necessary to develop, implement and support the IT architecture as approved and prioritized by the governance process. The CIO is the head of DIT.

Spotlight: Project Review/Approval
City Business Case Structure



Spotlight: Security

- **The City should conduct full Security, Analog Line, and Server Audits as soon as possible.**
  - **Citywide IT Security Audit**
    - Physical Access to Computer Facilities, Wiring Closets, etc.
    - Network Access (inbound and outbound)
    - Firewalls (architecture, vendor(s), software revisions, how managed, etc.)
    - System / Root Passwords:
    - Inventory and Identification of all Network equipment (who owns it, what it is used for, what is it connected to)
    - Inventory of all Wiring Closets and Network Cabling (FROM-AND-TO connections)
  - **Audit of PC Modems Connected To Analog Phone Lines**
    - How many, location, what are they being used for, which ISP services are they using?
    - Cost to the City vs. installing a Modem Bank connected to the network and removing all analog lines
    - Do users dial-in from home and have access to the city network? What software are they using? Cost?
  - **Citywide Server Audit**
    - Servers in the Computer Room (who owns it, what is it used for, who is system manager/has root password, etc.)
    - Servers in Wiring Closets
    - Servers in User Departments

Best Practice Cities Comparison

- **Current Citywide IT Staffing vs. Best Practice Cities**
  - Based on the recent high-level “IT Survey Questionnaire” compiled by the City there are 162 IT Staff Citywide performing IT functions.
    - When compared to the Best Practice Cities, the ratio of Total Users Supported to Total IT Staff is 31:1.
    - This ratio falls within the range of 23:1 for Phoenix and 35:1 for Honolulu.
- **IT Investment vs. Best Practice Cities**
  - Atlanta spends less on its Central IT Operations (on a percentage basis) than Phoenix, the only best practice agency with significant decentralized IT operations.
    - Atlanta spends 1% of City’s Operating Budget on Central IT, while Phoenix spends 1.9% of City’s Operating Budget on Central IT.
  - Atlanta spends more on total IT Operations (on a percentage basis) than Minneapolis and Honolulu.
    - Atlanta spends 2.4% of total City Operating Budget on IT Citywide, Minneapolis spends 1.5%, Honolulu spends .7%.
    - These cities may gain efficiencies through their completely centralized IT operations.

Estimated Implementation Costs

- **The majority of the recommendations provided in this report can be undertaken by existing City staff using existing resources.**
  - Most of the recommendations advise City staff to do things differently. These recommendations, of course, do not require additional outlay of funds by the City, but do require time of current staff. The implementation timeframes for these recommendations have been sequenced in a way to allow staff to continue accomplishing current workloads while undertaking implementation activities.
- **Some recommendations do require additional outlay of funds by the City. These costs will occur in two phases:**
  - **Initial Costs:** The City will have a small cash outlay to conduct the studies and audits recommended in this report.
    - Estimated One-time Costs: $2.1m - $4.2m
    - Estimated Annual Recurring Costs: $600k - $900k
    - These costs include hardware, software, services, and project oversight for initial projects recommended in this report. This does NOT include implementing the results of new processes or studies, e.g., implementing a new architecture, adjusting staff salaries, etc.
  - **IT Investment Costs:** When the City begins to improve its IT infrastructure by implementing the results of the steps recommended in this report (e.g., implementing an IT Strategy, implementing a new architecture, improving IT Operations), there will be significant investment costs for the City. This cannot be estimated with any degree of accuracy at this time, however, we assume that this investment could be in the tens of millions of dollars over several years.

Benefits

- **Implementing the recommendations provided in this report will help link information technology to the City's business goals and directions, and will allow the City to use technology more effectively in providing high quality services to the public.**
- **The City will have a standard technology infrastructure which will:**
  - Enable City systems to communicate with each other
  - Ensure that City staff and managers have accurate management information with which to make good decisions
  - Provide key stakeholders and the public access to key City information, increasing the transparency of City government
  - Improve the accuracy of, and confidence in, the City's billing processes which will increase collections and reduce legal action
- **The City's standard infrastructure and improved processes will lay the foundation for implementing e-government and improving citizen's access to City services.**

Benefits

- **Anticipated benefits of redesigning the key technology management processes include:**
  - **IT Strategy Development:** Planned, coordinated IT initiatives and purchases
  - **Annual IT Planning:** Annual budgeting that is based on the IT Strategy
  - **IT Architecture Development:** Systems that can share data, minimum number of vendors
  - **IT Products and Services Management:** Clear menu of services with Service Level Agreements
  - **IT Operations Management:** Managed IT assets, secure systems and data
  - **User Training and Support:** City staff with good computer skills, and knowledgeable, professional help desk support
  - **IT Unit Management:** Adequate numbers of well-trained IT staff
  - **Telecommunications Management**: Reliable network and telephone systems

The City will institutionalize IT Governance and Management processes that can be sustained and improved over time, supporting ongoing improvements in City services.

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